

REMARKS

In the Abstract

The Abstract has been amended to correct a typing error and a few other informalities. It is believed that the present amendments introduce no new matter.

The attention of the Examiner is drawn to the incorrect spelling of the word “particularly” in the title of the published application. Instead, that word is spelled correctly in the international application and in the national stage filing documents.

In the Claims

Claims 1-58 are pending in the application. Claims 1, 5, 6, 16, 29, 33, 39, and 58 have been canceled, and new claims 59-63 have been presented. Claims 2-4, 7-9, 17, 20-28, 30-32, 34-38, 40-44, 49-50, and 55-57 have been amended.

As requested by the Examiner, a clean set of claims is enclosed herein. Reconsideration and re-examination of the application is respectfully requested.

A. The Allowable Claims

Applicant gratefully acknowledges that claims 6-13, 16-22, and 39-56 are directed to allowable subject matter.

Accordingly, claim 6 has been rewritten as independent claim 59 to include all the limitations of 1 and 6 and of any intervening claims; to overcome the rejections under 35 USC 112 as discussed in the following section; and to correct minor informalities.

Claim 16 has been rewritten as independent claim 60 to include all the limitations of claims 1 and 16 and of any intervening claims; to overcome the rejections under 35 USC 112 as discussed in the following section; and to correct minor informalities.

Claim 39 has been rewritten as independent claim 61 to include all the limitations of claims 29 and 39 of any intervening claims; to overcome the rejections under 35 USC 112 as discussed in the following section; and to correct minor informalities.

Accordingly, allowance of claims 59, 7-13, 60, 17-22, 61, and 40-56 is respectfully requested.

B. The Rejections under 35 USC 112, Second Paragraph

Claims 1-58 have been rejected under 35 USC 112, second paragraph. It is respectfully submitted that the present amendments overcome this ground for rejection. In particular, in order to expedite allowance of the application:

“accurately” as been removed;

“univocally” has been removed except where it is believed that “univocally” points out the invention more distinctly. Marriam-Webster Online defines “univocal” as “having one meaning only; unambiguous.” Accordingly, “univocally” is defined herein as “unambiguously;”

“correlated” has been replaced with “associated,” which is a term used elsewhere in the claims without objection;

“assumed by” has been replaced by “of”;

“directly and” has been deleted;

“non-identity” has been clarified by the introduction of additional language;

claim 15 has been amended to recite “the additional program and the plant simulation software produce identical results;” and

“railway plant” has been provided proper antecedent basis where used.

C. The Rejections under 35 USC 102(b)

Claims 1, 3-4, 14-15, 29, 31-32, and 58 have been rejected under 35 USC 102(b) over Donne et al., Application of Modern Methods in Power Plant Simulation and Control” (“Reference D”).

Claims 1, 29 and 58 have been canceled, rendering this rejection moot. Claims 3-4, 14-15, and 31-32 are now dependent from new claim 62. Applicant respectfully submits that these claims are patentably distinguishable over Reference D.

For example and not by way of limitation, Reference D does not disclose “wherein the plant component is univocally associated to a virtual image of the plant component, the virtual image being generated by the graphic program” as recited in claim 62 and “univocally associating a plant component to a virtual image of the plant component,” as recited in independent claim 63.

Reference D also does not teach various other recited features, for example features that are related to the generation and correlation of the virtual image.

The claims dependent from claims 62 and 63 are not anticipated by Reference D at least for the same reasons as claims 62 and 63 and for the additional limitations contained therein.

D. The Rejections under 35 USC 103(a)

Claims 2, 5, 23-28, 30, 33, and 57 have been rejected under 35 USC 103(a) over Reference D in view of Hamadou et al., US 2002/0059050 ("Reference H").

Claims 5 and 33 have been canceled, rendering this rejection moot. Claims 2 and 23-28 are now dependent from new claim 62, and claims 30 and 57 are now dependent from new claim 63. Applicant respectfully submits that these claims are patentably distinguishable over References D and H or because these references, alone or in combination, do not teach all the elements of these claims.

Reference D has been discussed in the previous section. Reference H teaches a system having a model-based user interface for operating and monitoring a device, and a method therefor. In particular, Reference H teaches an information, operation and monitoring system, which provides visual information that is either representative of static conditions of one or more pieces of equipment, or, if dynamic, that relates only to pieces of equipment that are already in operation and that is triggered by a request received from a user.

In that respect, the system taught by Reference H is only "dynamic" in the sense that, for example, documentation about a piece of equipment may be continuously updated by having new links assigned to the system or by updating already existing components. See, e.g., Reference H at paragraph [0023]. These teachings of Reference H reflect the description of the prior art in Applicant's specification, for example at page 3, line 8 – page 4, line 13. It should be noted that Reference H teaches a system having a specific architecture but provides few specifics on how that architecture is achieved, making it reasonable to deduce that such architecture is based on means known in the art.

For example but not by way of limitation, neither Reference D nor Reference H teaches "wherein the logical engine commands and controls the simulation program," as in independent claim 62, or "causing the logical engine to command and control the simulation program," as in independent claim 63.

These recitations of independent claims 62 and 63 reflect a key feature of Applicant's invention, that simulation of one or more pieces of equipment and/or one or more parts of a railway plant are made possible even before the plant is built. This is achieved by providing a simulation program that faithfully reproduces the plant structure and the operating modes of operating units in the plant, and by having the simulation program controlled and commanded by a control and command logical program.

To explain this feature of Applicant's invention with an example, if a light signal has three different possible aspects (green, yellow, and red), the image of the light signal changes to one of the three colors if the logical command and control engine generates a command to change color. The simulator of the operating unit also generates a control command informing a central unit executing the logical command and control program that the signal has assumed the color directed by the command signal, so that different other commands can be computed and sent to other operating unit simulators as a consequence of the change in the light signal.

Conversely, an error in the behavior of light signal may be simulated by changing the aspect of the light signal (for example, to red) despite the command signal that was received by the light signal. The corresponding reaction of the command and control program can be observed graphically, since the light signal simulator, forced to be red, will generate and send a control signal to the command and control logic informing that the red (wrong) aspect has been assumed instead of the correct (green) aspect.

Differently from that, Reference H teaches only that components to be seen must be selected by the user and that a related view must be activated, See, e.g., paragraph 28 of Reference H. Therefore, no logical engine is provided that simulates a yet unbuilt plant and that autonomously reacts upon the occurrence of different events within the plant. Further, any views provided in Reference H appear to be related to a situation in time rather than being evolving views as taught by Applicant.

The claims dependent from claims 62 and 63 are patentably distinguishable over References D and H for the same reasons as claims 62 and 63 and for the additional limitations contained therein.

Conclusion

It is believed that all objection and rejections in the application have been addressed and that the application is in condition for allowance. A notice to that effect is respectfully requested.

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Respectfully submitted,

/Franco A. Serafini/
Franco A. Serafini, Registration No. 52,207
Attorney for Applicant

THEMIS LAW
7660 Fay Ave Ste H535
La Jolla, CA 92037